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EXAMINER

BARAN, MARY C

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 02/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/642,267

Applicant(s)

GOGUEN ET AL.

Examiner

Mary Kate B Baran

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on 27 November 2002.
These drawings are accepted by the examiner.

Response to Amendment

2. The action is responsive to the Amendment filed on 27 November 2002. Claims 1-9 are pending. Claim 1 has been amended.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voigt et al. (U.S. Patent No. 5,623,598) in view of Harrison et al. (U.S. Patent No. 6,128,717).

Referring to claim 1, Voigt et al. teaches a method for presenting system performance to a user in a mass storage system (see Voigt et al., Figures 5-7), the storage system having a plurality of disk drive storage elements (see Voigt et al., Figure 2, storage disks 32) controlled by a disk drive controller (see Voigt et al., Figure 2, "disk array controller 34" and column 3 lines 5-9), said controller receiving commands and

data from (see Voigt et al., column 4 line 65 – column 5 line 5) and returning at least data to a host computer (see Voigt et al., column 6 lines 5-13), the method includes the steps: executing a test request by sending commands to said mass storage system (see Voigt et al., column 5 lines 29-31), accumulating, at said executing host computer, data regarding performance of said mass storage system, in response to the requests sent by said host computer (see Voigt et al., column 5 lines 20-24), and presenting said accumulated data, in a graphical plot format (see Voigt et al., Figures 5-7), for enabling the visualization of trends in the performance of said mass storage system as a function of at least one selected parameter, in response to said host generated commands (see Voigt et al., column 6 lines 10-13 and lines 24-29). Voigt et al. does not teach a controller connected to a plurality of host computers.

Harrison et al. teaches a controller (i.e. interface structure 14) which is connected to plurality of host computers (i.e. network environment 12) (see Harrison et al., column 7 lines 3-11 and Figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was to modify Voigt et al. to include the teachings of Harrison et al. because providing performance data for a plurality of hosts can enhance the overall performance of the storage system (see Harrison et al., column 5 lines 46-53).

Referring to claim 2, Voigt et al. further teaches the method wherein the parameter is time (see Voigt et al., column 6 lines 5-6).

Referring to claim 5, Voigt et al. further teaches the method wherein said presenting step displays said data on a computer display in said graphical format (see Voigt et al., column 6 lines 10-13 and Figures 5-7).

Referring to claim 6, Voigt et al. further discloses the method wherein said method further comprises selecting at least one test phase for viewing in said graphical plot format (see Voigt et al., column 6 lines 29-33 and Figures 5-7).

Referring to claim 7, Voigt et al. further teaches displaying, in association with said graphical plot format, parameters relating to the graph (see Voigt et al., column 6 lines 33-36 and Figures 5-7).

Referring to claim 8, Voigt et al. further teaches parameters which include at least one of the nature of the test, the size of data blocks which have been used, and the number of data points (see Voigt et al., column 5 lines 1-5).

Referring to claim 9, Voigt et al. further teaches enabling a user to display multiple graphs on a single sheet (see Voigt et al., Figure 7).

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voigt et al. (U.S. Patent No. 5,623,598) in view of Harrison et al. (U.S. Patent No. 6,128,717) and further in view of Oshelski et al. (U.S. Patent No. 5,586,059).

Referring to claim 3, as noted above Voigt et al. and Harrison et al. teach all but a method wherein said accumulating step accumulates said data in a plurality of databases, and said method further comprises selecting one of said databases for viewing.

Oshelski et al. teaches extracting data and storing the data in a plurality of databases (see Oshelski et al., column 5 lines 44-47) and accessing these files to analyze and display in user-specified formats which include charts and graphs (see Oshelski et al., column 5 lines 30-40).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the teachings of Voigt et al. in view of Harrison et al. and in further view of Oshelski et al. to make the requested data easier to access and faster to plot.

Referring to claim 4, as noted above Voigt et al. and Harrison et al. teach all but a method wherein said presenting step prints said data in said graphical plot format.

Oshelski et al. discloses printing data (see Oshelski et al., column 6 lines 17-20) in a user-selected format, which includes charts or graphs (see Oshelski et al., column 5 lines 37-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the teachings Voigt et al. in view of Harrison et al. and in further view of Oshelski et al. to provide the user with a hard copy of the performance data in case of system error or for publication.

Response to Arguments

5. Applicant's arguments filed 27 November 2002 have been fully considered but they are not persuasive.

Applicant argues that Voigt et al. does not disclose a disk drive controller receiving commands and data from and returning at least data to a plurality of host computers. Voigt et al. however does teach a disk drive controller (see Voigt et al., Figure 2, disk array controller 34 and column 3 lines 5-9), said controller receiving commands and data from (see Voigt et al., column 4 line 65 – column 5 line 5) and returning at least data to a host computer (see Voigt et al., column 6 lines 5-13). The Examiner notes that Voigt et al. does not teach a plurality of host computers. To meet this limitation the Examiner turns to Harrison et al., who teaches a controller (i.e. interface structure 14) which is connected to plurality of host computers (i.e. network environment 12) (see Harrison et al., column 7 lines 3-11 and Figure 2). With respect to claim 1, in addition to the reasons noted above, it would have been obvious to modify Voigt et al. to include the teachings of Harrison et al. because providing performance data for a plurality of hosts can enhance the overall performance of the storage system (see Harrison et al., column 5 lines 46-53).

As noted in the above paragraph, while Voigt et al. does not teach a plurality of host computers, Voigt does teach executing at a host computer a test request by sending commands to the mass storage system (see Voigt et al., column 5 lines 20-24) and accumulating at the host computer data regarding performance of the mass storage

system in response to the requests sent by the host computer (see Voigt et al., column 5 lines 20-24).

Applicant further argues that there is no motivation to combine Voigt et al. with Harrison et al. and/or Oshelski et al. However, Voigt et al. teaches the improvement of the performance of a data storage system, Harrison et al. discloses providing efficient storage of user data within a digital data storage unit, and Oshelski et al. discloses a system for data management, all of which are pertinent to the claimed invention.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Hale et al. discloses a benchmark tool for a mass storage system.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Kate B Baran whose telephone number is (703) 305-4474. The examiner can normally be reached on Monday - Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S Hoff can be reached on (703) 308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

MKB
January 27, 2003


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800